

AN ANNOTATED SYSTEMATIC CHECK LIST OF THE ANGIOSPERMAE OF THE WORCESTER VELD RESERVE

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ABSTRACT

The vegetation of the Worcester Veld Reserve is briefly discussed. The 273 species recorded are listed in a systematic check list. Of the 48 families recorded, the Compositae (54 spp.), Liliaceae (37 spp.), Crassulaceae (20 spp.), Gramineae (19 spp.), Mesembryanthemaceae (19 spp.) and Iridaceae (18 spp.) are best represented. The genus *Crassula* is represented by 17 species.

UITTREKSEL

'N GEANNOTEEERDE SISTEMATIESE KONTROLELYS VAN DIE ANGIOSPERMAE
VAN DIE WORCESTERSE VELDRESERVAAT

Die plantegroei van die Worcesterse Veldreservaat word kortliks bespreek. Die 273 spesies wat aangeteken is, word weergegee in 'n sistematiese kontrolelyst. Van die 48 families wat aangeteken is, is die volgende die beste verteenwoordig: Compositae (54 spp.), Liliaceae (37 spp.), Crassulaceae (20 spp.), Gramineae (19 spp.), Mesembryanthemaceae (19 spp.) en Iridaceae (18 spp.). Die genus *Crassula* word verteenwoordig deur 17 spesies.

INTRODUCTION

The Worcester Veld Reserve is situated approximately one kilometer northeast of the town of Worcester, at S 33° 39' and E 19° 27'. The area was proclaimed a nature reserve in 1935 and is administered by the Department of Agricultural Technical Services.

It is essential to have a reasonable knowledge of the species occurring within a protected area. This survey was undertaken as few data were available on the Worcester Veld Reserve. The study was restricted to the approximately 75 ha of natural vegetation north of the municipal canal as the area for the greater part south of the canal had been divided into experimental plots (Fig. 1). In 1973 the area east of the broken line was also cleared for experimental purposes.

METHODS

During the period 1961-1964 the area was visited at regular intervals and specimens were collected in triplicate. One set was sent to the National Herbarium, Botanical Research Institute, Pretoria for identification. One set is housed in the Government Herbarium, Botanical Research Unit, Stellenbosch. The third

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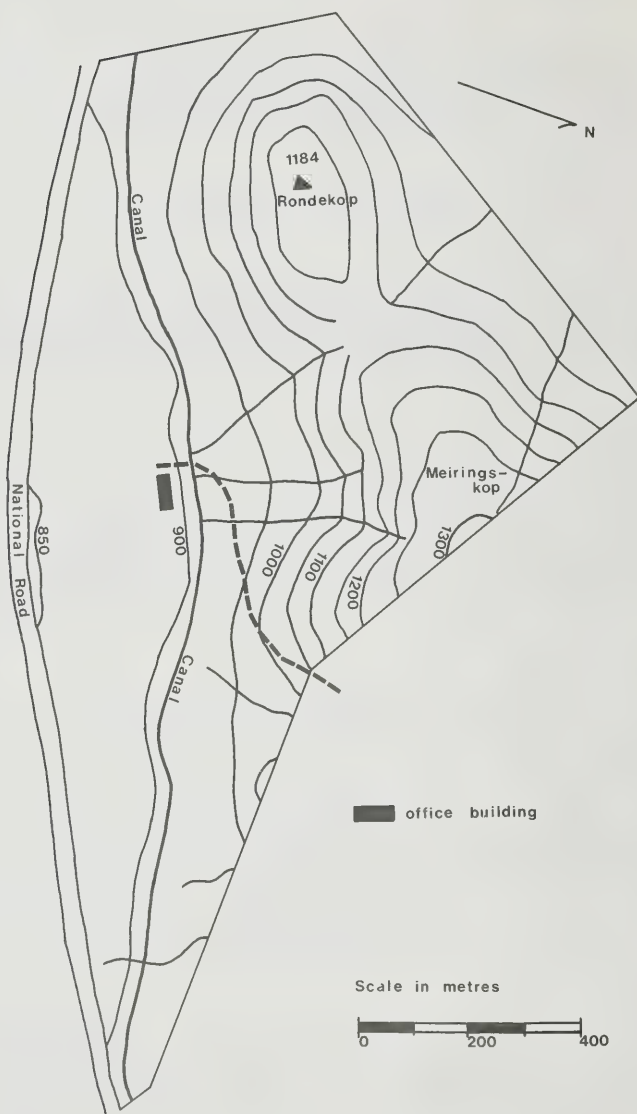


FIG. 1.
Topographic Map of the Worcester Veld Reserve

set was placed in the Worcester Veld Reserve Herbarium. The area was revisited during 1966 and 1977.

Communities were determined by visual assessment. A 1:18 000 topographical map of the relevant area was used, enlarged X15, copied on squared paper, the communities were plotted and the map was then reduced.

Flowering periods were recorded as well as the presence or absence of species in the different communities. Abundance was estimated on a five-point scale: rare, uncommon, fairly common, common and very common.

RESULTS AND DISCUSSION

Vegetation

The Worcester Veld Reserve forms part of a region commonly known as the Robertson Karoo and is classified by Acocks (1975) under Veld Type 26. The area is semi-arid receiving most of its rain during winter. The vegetation consists mainly of shrubs of which a large number are succulents. The plants occur in two strata, the upper stratum seldom exceeding one metre. A tree layer is absent. The four tree species, *Euclea undulata*, *Dodonaea viscosa* var. *angustifolia*, *Rhus incisa* and *R. undulata* which grow in the area are stunted and occur mostly as shrubs. A herb layer consisting of annuals and geophytes is found here and there after the winter rains.

Two well-defined communities can be distinguished:

1. *Euphorbia mauritanica*-community and 2. *Pteronia paniculata*-community (Fig. 2).

1. *Euphorbia mauritanica*-community

This community occurs over the whole area, mostly as distinct circular stands on the soils of the so-called "kraaltjies" (Van der Merwe, 1962), with a diameter varying from 20 to 50 metres. The soil is deep and soft with a considerable amount of organic material, the pH varying between 7,4 and 8,4. The vegetation is dense and the dominant species are: *Euphorbia mauritanica*, *E. burmannii*, *Galenia africana*, *Pteronia incana* and *Ruschia caroli*.

2. *Pteronia paniculata*-community

This community occupies the area outside the *Euphorbia mauritanica* stands. It occurs on poorly developed stony soils with very little organic material, the pH varying from 3,9 to 4,9. The vegetation is open and *Pteronia paniculata* and *Ruschia caroli* are the dominant species. On the hill tops two fynbos elements, *Restio gaudichaudianus* and *Passerina obtusifolia* are found.

Flora

There are 48 families, 153 genera and 273 species of angiosperms in the Worcester Veld Reserve. An analysis of the families indicates that nine (18,75 %)

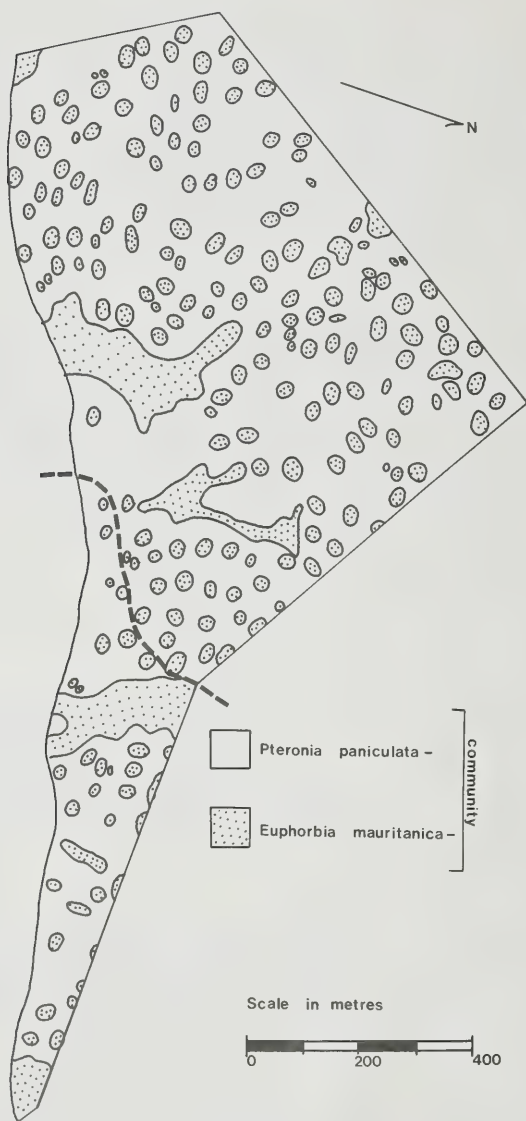


FIG. 2.
Vegetation Map of the Worcester Veld Reserve

are monocotyledons and 39 (81,25 %) are dicotyledons. The monocotyledons are represented by 88 (32,23 %) and the dicotyledons by 185 (67,77 %) species. There are 14 (29,17 %) families whose species contribute more than 1,5 % of the total number of species and these are listed in order of numerical importance in Table 1. Twenty (41,67 %) families are represented by one species only, nine (18,75 %) families are represented by two species, four (8,33 %) by three species and one (2,08 %) by four species.

Phenology

An analysis of the flowering periods of the different species is given in Table 2 and Fig. 3.

TABLE 1.

Synopsis of the families whose species comprise more than 1,5 % of the total number listed in order of numerical importance, together with the number of genera in each family.

Family	No. of species	No. of species expressed as a % of total	No. of genera	No. of genera expressed as a % of total
Compositae	54	19,78	24	15,69
Liliaceae	37	13,55	16	10,46
Crassulaceae	20	7,33	3	1,96
Gramineae	19	6,96	13	8,50
Mesembryanthemaceae .	19	6,96	11	7,19
Iridaceae	18	6,59	11	7,19
Aizoaceae	8	2,93	4	2,61
Geraniaceae	8	2,93	2	1,31
Leguminosae	7	2,56	6	3,92
Orchidaceae	6	2,20	3	1,96
Asclepiadaceae	6	2,20	6	3,92
Oxalidaceae	6	2,20	1	0,65
Scrophulariaceae	6	2,20	5	3,27
Umbelliferae	5	1,83	4	2,61

TABLE 2.

Relationship between the percentage of species flowering and the months of the year.

	Months	Species	
		Number	% of Total
	1	13	4,76
	2	13	4,76
	3	27	9,89
	4	19	6,96
	5	19	6,96
	6	35	12,82
	7	59	21,61
	8	108	39,56
	9	138	50,55
	10	62	22,71
	11	37	13,55
	12	21	7,69

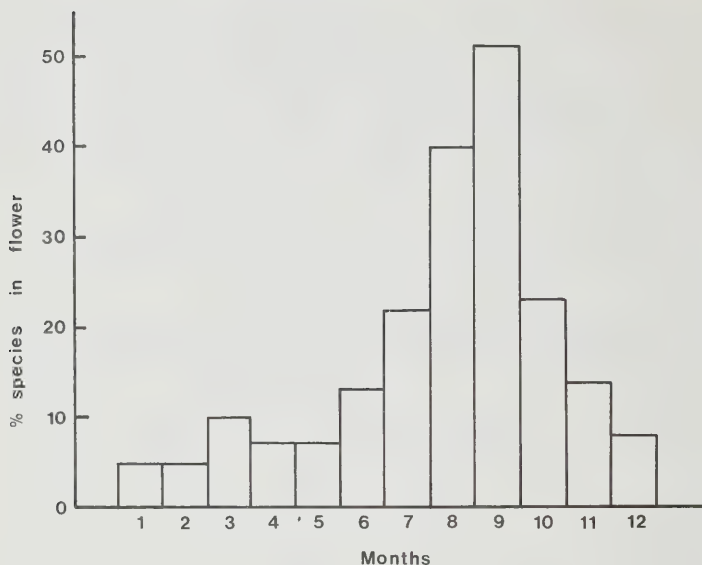


FIG. 3.

Histogram showing the relationship between the percentage of species flowering and the months of the year.

SYSTEMATIC LIST

The systematic list is arranged according to Dyer (1975, 1976). (The numbers following the species refer to the author's collecting number, fl. = flowering period, E.m. = *Euphorbia mauritanica*-community and P.p. = *Pteronia paniculata*-community).

DICOTYLEDONAE

SANTALACEAE

Thesium aggregatum A. W. Hill 53, fl. 1-12, P.p. fairly common

HYDNORACEAE

Hydnora africana Thunb. 294, fl. 9, E.m. parasitic on *Euphorbia mauritanica* and *E. burmannii*, fairly common.

POLYGONACEAE

Rumex cordatus Desf. 45, fl. 6-8, P.p. southern aspect of Meiringskop, uncommon.

CHENOPODIACEAE

Chenopodium murale L. 182, fl. 9, E.m. annual, uncommon.

Exomis microphylla (Thunb.) Aellen var. *axyrioides* (Fenzl) Aellen 209, fl. 12, P.p. one plant observed north of office building, locality destroyed 1973.

- Atriplex semibaccata* R.Br. 252, fl. 1–12, P.p. & E.m. fairly common.
Manochlamys albicans (Ait.) Aellen 34, fl. 8–9, P.p. & E.m. fairly common.

AIZOACEAE

- Limeum aethiopicum* Burm.f. subsp. *aethiopicum* 208, fl. 9–12, E.m. northern slope of Rondekop, rare.
Pharnaceum aurantium (DC.) Druce 100, fl. 8–9, P.p. northern aspect, fairly common.
Galenia africana L. 146, fl. 10, P.p. & E.m. very common in E.m.
G. fruticosa (L.f.) Sond. 170, fl. 10, E.m. uncommon, on Rondekop.
Tetragonia arbuscula Fenzl 115, fl. 9–10, P.p. & E.m. fairly common.
T. echinata Ait. 180, fl. 10, E.m. uncommon.
T. robusta Fenzl 125, fl. 8–9, E.m. southern aspect, uncommon.
T. saligna Fenzl 21, fl. 6–9, P.p. & E.m. fairly common.

MESEMBRYANTHEMACEAE

- Conophytum odoratum* (N.E.Br.) N.E.Br. 94, fl. 5–6, P.p. northern aspect, rocky outcrops, fairly common.
Delosperma pageanum (L.Bol.) L.Bol. 41, fl. 6–9, P.p. & E.m. fairly common.
Drosanthemum brevifolium (Ait.) Schwant. 246, fl. 12, P.p. & E.m. eastern part of reserve, uncommon, locality destroyed 1973.
D. calycinum (Haw.) Schwant. 160, fl. 9–10, E.m. southern aspect, fairly common.
D. lique (N.E.Br.) Schwant. 244, fl. 6–9, P.p. & E.m. common.
D. speciosum (Haw.) Schwant. 164, fl. 10–11, P.p. fairly common.
D. striatum (Haw.) Schwant. 91, fl. 8, P.p. southern aspect of Meiringskop, uncommon.
Lampranthus haworthii (Don) N.E.Br. 161, fl. 8–9, P.p. & E.m. common.
L. sp. cf. L. versicolor Haw. 287, fl. 9, P.p. southern aspect, uncommon.
Leipoldtia jacobseniana Schwant. 214, fl. 9, P.p. & E.m. northern aspect, common.
Mesembryanthemum magniflorum Eckl. & Zeyh. 226, fl. 11, E.m. annual, uncommon.
Nycteranthus blandus (L.Bol.) Schwant. 179, fl. 10–11, P.p. & E.m. fairly common.
N. sp. 200, fl. 10–11, P.p. fairly common.
Prenia pallens (Ait.) N.E.Br. 191, fl. 10, E.m. northern aspect of Meiringskop, uncommon.
Psilocaulon rogersiae L.Bol. 202, fl. 10–11, E.m. common.
Ruschia caroli (L.Bol.) Schwant. 215, fl. 9, P.p. & E.m. very common.
R. hamatilis L.Bol. 245, fl. 9, P.p. southern aspect of Meiringskop, uncommon.
R. multiflora (Haw.) Schwant. 193, fl. 10–11, P.p. & E.m. uncommon.
Scetetium joubertii L.Bol. 110, fl. 9, P.p. low lying area north of office building, locality destroyed 1973.

PORTULACACEAE

- Anacampseros telephiastrum* DC. 192, fl. 11, P.p. fairly common.
A. sp. 242, fl. 11, P.p. uncommon.

ILLECEBRACEAE

- Pollichia campestris* Ait. 249, fl. 2, P.p. northern aspect of Rondekop, rare.

MENISPERMACEAE

- Cissampelos torulosa* E.Mey. ex Harv. 43, fl. 7, P.p. & E.m. common.

FUMARIACEAE

- Cysticapnos vesicarius* (L.) Fedde 90, fl. 8–9, E.m. southern aspect, annual, fairly common.

CRUCIFERAE

- Heliphila crithmifolia* Willd. 75, fl. 8–9, P.p. & E.m. uncommon.
H. suavisissima Burch. ex DC. 87, fl. 9, P.p. & E.m. fairly common.

CRASSULACEAE

- Cotyledon orbiculata* L. 184, fl. 10–3, P.p. & E.m. common.
C. paniculata L.f. 237, fl. 11–12, P.p. & E.m. common in E.m.
Crassula arborescens (Mill.) Willd. subsp. *arborescens* 238, fl. 10–11, P.p. & E.m. northern aspect, uncommon.
C. atropurpurea (Haw.) Dietr. var. *rubella* (Compton) Toelken 167, fl. 10–11, P.p. & E.m. common in P.p.
C. bergioides Harv. 289, fl. 9, P.p. annual, rare.
C. campestris (Eckl. & Zeyh.) Endl. ex Walp. subsp. *campestris* 176, fl. 9, P.p. southern aspect, annual, rare.
C. capitella Thunb. subsp. *thyrsiflora* (Thunb.) Toelken 239, fl. 3–4, E.m. uncommon.
C. expansa Dryand. in Ait. subsp. *expansa* 185, fl. 1–12, P.p. & E.m. uncommon.
C. muricata Thunb. 240, fl. 10, P.p. uncommon.
C. muscosa L. 201, fl. 9–11, P.p. & E.m. common.
C. nudicaulis L. var. *nudicaulis* 177, fl. 8–10, P.p. & E.m. common in P.p.
C. oblanceolata Schönl. & Bak.f. 175, fl. 9, E.m. annual, fairly common.
C. rupestris Thunb. subsp. *rupestris* 26, fl. 7–9, P.p. & E.m. northern aspect, common.
C. saxifraga Harv. 2, fl. 4, P.p. southern aspect of Meiringskop, uncommon.
C. subaphylla (Eckl. & Zeyh.) Harv. 166, fl. 10, P.p. & E.m. common.
C. subulata L. 213, fl. 12–3, P.p. uncommon.
C. tetragona L. subsp. *tetragona* 224, fl. 3–7, P.p. & E.m. fairly common.
C. tomentosa Thunb. var. *tomentosa* 205, fl. 11, E.m. uncommon.
C. umbella Jacq. 80, fl. 8–9, P.p. & E.m. southern aspect, uncommon.
Adromischus mammillaris (L.f.) Lem. ex Berger 212, fl. 1–3, P.p. & E.m. common in P.p.

LEGUMINOSAE

- Lebeckia cytisoides* Thunb. 101, fl. 8–10, P.p. southern aspect of Rondekop, on area that was burnt in 1938, common.
Aspalathus candicans Ait. 158, fl. 9–10, P.p. uncommon.
A. lactea Thunb. subsp. *breviloba* R. Dahlgr. 228, fl. 9–3, P.p. fairly common.
Melolobium microphyllum Eckl. & Zeyh. 229, fl. 8, E.m. low lying area above office building, locality destroyed 1973.
Indigofera sessilifolia DC. 72, fl. 7–9, P.p. & E.m. fairly common.
Psoralea candicans Eckl. & Zeyh. 207, fl. 10, P.p. southern aspect of Meiringskop, rare.
Sutherlandia frutescens R.Br. 157, fl. 8–9, P.p. & E.m. uncommon.

GERANIACEAE

- Erodium cicutarium* (L.) L'Hérit. ex Ait. 272, fl. 8–9, E.m. southern aspect, annual, uncommon.
Pelargonium alchemilloides (L.) L'Hérit. ex Ait. 58, fl. 10–11, P.p. & E.m. southern aspect, uncommon.
P. alternans Wendl. 173, fl. 4–10, P.p. northern aspect, common.
P. carnosum (L.) Ait. 126, fl. 9, P.p. southern aspect, rare.
P. lobatum (L.) Ait. 71, fl. 8–9, P.p. & E.m. southern aspect, fairly common.
P. longifolium (Burm.f.) Jacq. 13, fl. 12–2, P.p. & E.m. uncommon.
P. tripartitum Willd. 147, fl. 9, E.m. rare.
P. sp. 259, fl. 4, P.p. & E.m. south-western aspect of Rondekop, rare.

OXALIDACEAE

- Oxalis* sp. cf. *O. amblyosepala* Schltr. 264, fl. 7-9, P.p. & E.m. fairly common.
O. depressa Eckl. & Zeyh. 265, fl. 7-9, P.p. on Rondekop, uncommon.
O. pes-caprae L. 263, fl. 6-9, P.p. & E.m. fairly common.
O. sp. (sub. sect. *Pardales*) 262, fl. 6-7, P.p. southern aspect, uncommon.
O. sp. 257, fl. 5-8, E.m. southern aspect, uncommon.
O. sp. 258, fl. 5-8, P.p. southern aspect, uncommon.

ZYGOPHYLLACEAE

- Zygophyllum fulvum* L. 18, fl. 7-8, P.p. & E.m. southern aspect, fairly common.

POLYGALACEAE

- Polygala affinis* DC. 81, fl. 7, P.p. southern aspect, rare.
Nylandtia spinosa (L.) Dumort. 86, fl. 7, P.p. northern aspect, rare.

EUPHORBIACEAE

- Euphorbia burmannii* E.Mey. ex Boiss. 92, fl. 8-9, P.p. & E.m. very common in E.m.
E. mauritanica L. 17, fl. 6-9, P.p. & E.m. very common in E.m.
E. nesemannii R.A.Dyer 225, fl. 5-6, P.p. northern aspect of Rondekop, localised.

ANACARDIACEAE

- Rhus incisa* L.f. 49, fl. 8, P.p. & E.m. common.
R. undulata Jacq. 216, fl. 5-6, P.p. & E.m. southern aspect, uncommon.

SAPINDACEAE

- Dodonaea viscosa* Jacq. var. *angustifolia* Benth. 44, fl. 7-8, P.p. uncommon.

MALVACEAE

- Anisodonteia triloba* (Thunb.) Bates 16, fl. 5-10, P.p. & E.m. southern aspect, uncommon.

STERCULIACEAE

- Hermannia candicans* Ait. 128, fl. 7-9, P.p. & E.m. fairly common.
H. desertorum Eckl. & Zeyh. 85, fl. 8, P.p. & E.m. fairly common.

THYMELAEACEAE

- Struthiola leptantha* Bol. 23, fl. 7-8, P.p. northern aspect, localised.
Passerina obtusifolia Thoday 118, fl. 9, P.p. on Rondekop & Meiringskop, common.

UMBELLIFERAE

- Arctopus echinatus* L. 61, fl. 7-8, P.p. southern aspect of Meiringskop, localised.
Torilis arvensis (Huds.) Link 121, fl. 9, E.m. southern aspect, annual, fairly common.
Rhyticarpus difformis (L.) Benth. & Hook. 210, fl. 11, P.p. & E.m. fairly common.
R. sp. 56, fl. 11, P.p. southern aspect, uncommon.
Chamarea capensis (Thunb.) Eckl. & Zeyh. 93, fl. 3-4, P.p. low lying areas, fairly common.

EBENACEAE

- Euclea undulata* Thunb. var. *undulata* 183, fl. 12, P.p. & E.m. more common on northern aspect.

GENTIANACEAE

- Sebaea exacoides* (L.) Schinz 154, fl. 8-9, P.p. annual, southern aspect, uncommon.

APOCYNACEAE

Carissa haematocarpa (Eckl.) A.DC. 293, fl. 11, P.p. northern aspect of Meiringskop, rare.

ASCLEPIADACEAE

Microlooma sagittatum (L.) R.Br. 5, fl. 6–10, P.p. & E.m. southern aspect, uncommon.
Asclepias cancellata Burm. f. 27, fl. 4–9, P.p. northern aspect, uncommon.
Sarcostemma viminalis (L.) R.Br. 6, fl. 2, P.p. & E.m. northern aspect, fairly common.
Duvalia radiata Haw. 218, fl. 3, P.p. & E.m. southern aspect, uncommon.
Caralluma sp. 217, fl. 6, P.p. & E.m. fairly common.
Orbea variegata (L.) Haw. (= *Stapelia variegata* L.) 211, fl. 3, P.p. & E.m. uncommon.

BORAGINACEAE

Lobostemon echiodos Lehm. 74, fl. 6–10, P.p. southern aspect of Rondekop, uncommon.

LABIATAE

Ballota africana (L.) Benth. 169, fl. 9–10, P.p. & E.m. southern aspect, uncommon.
Stachys aethiopica L. 35, fl. 7–10, E.m. southern aspect, fairly common.

SOLANACEAE

Lycium arenicolum Miers 47, fl. 5–9, P.p. & E.m. common in E.m.
L. austrinum Miers 89, fl. 7, E.m. rare.
Solanum tomentosum L. 206, fl. 11, E.m. northern aspect of Meiringskop, rare.

SCROPHULARIACEAE

Diascia nana Diels 103, fl. 9, P.p. annual, uncommon.
D. parviflora Benth. 25, fl. 8–9, P.p. & E.m. southern aspect, annual, fairly common.
Hemimeris montana L.f. 24, fl. 8–9, P.p. & E.m. southern aspect, annual, fairly common.
Sutera glabrata (Benth.) Kuntze 33, fl. 6–9, P.p. & E.m. uncommon.
Polycarena pubescens Benth. 137, fl. 8–9, P.p. southern aspect, annual, fairly common.
Hyobanche sanguinea L. 292, fl. 8, P.p. northern aspect, uncommon.

SELAGINACEAE

Selago fruticulosa Rolfe 267, fl. 7–8, P.p. low lying areas, fairly common.
S. sp. cf. S. spinea Link 32, fl. 8–9, P.p. uncommon.

PLANTAGINACEAE

Plantago cafra Decne 291, fl. 8, P.p. annual, rare.

RUBIACEAE

Anthospermum aethiopicum L. 37, fl. 7–9, P.p. & E.m. on Rondekop.
Galium asperum Thunb. 152, fl. 10, E.m. fairly common.
G. spurium L. 152a, fl. 10, E.m. fairly common.

CUCURBITACEAE

Kedrostis nana (Lam.) Cogn. var. *zeyheri* (Schrad.) A.Meeuse 243, fl. 2, E.m. rare.

CAMPANULACEAE

Liglitfootia albens Spreng. ex A.DC. 153, fl. 7–9, P.p. & E.m. southern aspect, common.

LOBELIACEAE

Cyphia digitata (Thunb.) Willd. 7, fl. 8–9, P.p. & E.m. uncommon.

COMPOSITAE

- Pteronia fasciculata* L.f. 57, fl. 11, P.p. common on Meiringskop.
P. incana (Burm.) DC. 123, fl. 9–10, P.p. & E.m. very common in E.m.
P. paniculata Thunb. 14, fl. 12–1, P.p. & E.m. very common especially in P.p.
Felicia filifolia (Vent.) Burt Davy subsp. *filifolia* 22, fl. 7–8, P.p. & E.m. common.
Chrysocoma coma-aurea L. 20, fl. 7–10, P.p. & E.m. common.
C. tenuifolia Berg. 55, fl. 11, P.p. & E.m. uncommon.
Gnaphalium declinatum L.f. 280, fl. 9–11, P.p. & E.m. uncommon.
G. undulatum L. 253, fl. 3, P.p. & E.m. uncommon.
Helichrysum capillaceum (Thunb.) Less. 155, fl. 9, P.p. & E.m. annual, uncommon.
H. ericaefolium Less. 236, fl. 11–1, P.p. & E.m. uncommon.
H. hebelepis DC. 198, fl. 9, P.p. rare.
H. rosum (Berg.) Less. 190, fl. 10–11, P.p. & E.m. fairly common.
H. rutilans (L.) Less. 296, fl. 9, P.p. annual, rare.
Leontonyx squarrosus (L.) DC. 281, fl. 10, P.p. annual, rare.
Elytropappus gnaphaloides (L.) Levyns 222, fl. 3, P.p. rare.
E. rhinocerotis (L.f.) Less. 223, fl. 4–5, P.p. & E.m. common.
Relhania genistifolia (L.) L'Hérit. 274, fl. 9–10, P.p. & E.m. uncommon.
R. sessiliflora (L.f.) Thunb. 133, fl. 9, P.p. & E.m. annual, uncommon.
R. squarrosa (L.) L'Hérit. 111, fl. 9, P.p. & E.m. common in P.p.
Leyssera gnaphaloides (Burm.f.) L. 285, fl. 9, P.p. & E.m. southern aspect, rare.
Inula graveolens (L.) Desf. 235, fl. 3–4, P.p. & E.m. annual, uncommon.
Eriocephalus africanus L. 42, fl. 7, P.p. & E.m. fairly common.
E. ericoides (L.f.) Druce 220, fl. 7–8, P.p. & E.m. northern aspect, uncommon.
Athanasia trifurcata L. 195, fl. 11, P.p. & E.m. uncommon.
Cotula sororia DC. 132, fl. 8–9, P.p. southern aspect, annual, uncommon.
Pentzia globifera (Thunb.) Hutch. 159, fl. 10–11, E.m. annual, uncommon.
P. incana (Thunb.) Kuntze 116, fl. 7–10, P.p. & E.m. fairly common.
Cineraria lobata L'Hérit. 174, fl. 9–10, E.m. southern aspect, uncommon.
C. saxifraga DC. 178, fl. 9, P.p. southern aspect, annual, uncommon.
Senecio acaulis (DC.) Sch.Bip. 189, fl. 10, P.p. southern aspect, uncommon.
S. aizoides (DC.) Sch.Bip. 219, fl. 6, P.p. on Meiringskop, uncommon.
S. burchellii DC. 73, fl. 6–11, P.p. & E.m. fairly common.
S. corymbiferus DC. 19, fl. 8, P.p. & E.m. common.
S. junceus Harv. 233, fl. 3–4, P.p. & E.m. fairly common.
S. radicans (L.f.) Sch.Bip. 40, fl. 7–10, P.p. & E.m. common.
S. rosmarinifolius L.f. 221, fl. 12, P.p. & E.m. southern aspect, rare.
S. sophioides DC. 134, fl. 8–9, P.p. & E.m. annual, fairly common.
Euryops linearis Harv. 70, fl. 8, P.p. on Meiringskop, fairly common.
E. tenuissimus (L.) DC. 188, fl. 10, P.p. & E.m. southern aspect, fairly common.
Othonna amplexifolia DC. 46, fl. 6–7, P.p. southern aspect, uncommon.
O. sp. cf. O. arbuscula (DC.) Sch.Bip. 261, fl. 3–4, P.p. & E.m. common on Meiringskop.
O. carnosa Less. 38, fl. 5–9, P.p. uncommon.
O. gymnodiscus (DC.) Sch.Bip. 39, fl. 7–8, P.p. southern aspect, uncommon.
O. lobata Schltr. 29, fl. 6–7, P.p. & E.m. uncommon.
Osteospermum calendulaceum L.f. 270, fl. 9–10, E.m. annual, uncommon.
O. clandestinum (Less.) Norl. 99, fl. 8–9, P.p. & E.m. annual, uncommon.
O. scariousum DC. 84, fl. 8, P.p. southern aspect, rare.
O. sinuatum (DC.) Norl. 48, fl. 7–9, P.p. & E.m. fairly common.
Ursinia anthemoides (L.) Poir. 98, fl. 8–9, P.p. annual, uncommon.
U. pilifera (Berg.) Poir. 142, fl. 9–10, P.p. fairly common.
Arctotis arctotoides (L.f.) O. Hoffm. 113, fl. 8–9, E.m. annual, uncommon.
Gazania krebiana Less. 284, fl. 9, P.p. uncommon.
Hirpicium integrifolium (Thunb.) Less. 112, fl. 9–10, P.p. & E.m. fairly common.
Sonchus oleraceus L. 199, fl. 9–10, P.p. & E.m. annual, uncommon.

MONOCOTYLEDONAE

GRAMINEAE

- Hyparrhenia hirta* (L.) Stapf 279, fl. 8–12, P.p. northern aspect of Rondekop.
Ehrharta calycina J.E.Sm. 50, fl. 8–9, P.p. & E.m. common.
E. delicatula Stapf 120, fl. 8–9, P.p. & E.m. annual, fairly common.
E. erecta Lam. 83, fl. 8–9, E.m. southern aspect, fairly common.
E. longiflora J.E.Sm. 150, fl. 9, P.p. & E.m. southern aspect, annual, fairly common.
E. triandra Nees 148, fl. 8–9, P.p. & E.m. annual, fairly common.
E. villosa Schult.f. 165, fl. 10, P.p. & E.m. southern aspect, fairly common.
Phalaris minor Retz. 278, fl. 9–10, E.m. northern aspect, annual, fairly common.
Merxmuellera arundinacea (Berg.) Conert 168, fl. 9, P.p. one clone observed on western slope of Rondekop.
M. stricta (Schrad.) Conert 297, fl. 9–10, P.p. fairly common.
Karooochloa curva (Nees) Conert & Turpe 149, fl. 9, P.p. & E.m. uncommon.
Pentstschis airoides (Nees) Stapf 130, pl. 8–9, P.p. & E.m. annual, fairly common.
Eragrostis curvula (Schrad.) Nees 127, fl. 7–9, P.p. northern aspect, localised.
Cynodon dactylon (L.) Pers. 241, fl. 11–5, P.p. & E.m. fairly common.
Briza minor L. 194, fl. 9, P.p. annual, southern aspect, uncommon.
Schismus inermis (Stapf) C.E.Hubb. 172, fl. 8–9, E.m. annual, fairly common.
Poa vivipara (L.) Willd. 271, fl. 8–9, P.p. southern aspect, uncommon.
Bromus japonicus Thunb. 131, fl. 8–9, P.p. & E.m. southern aspect, annual, common.
Hordeum murinum L. 151, fl. 9–10, P.p. & E.m. southern aspect, annual, fairly common.

CYPERACEAE

- Ficinia ramosissima* Kunth 31, fl. 8–9, P.p. & E.m. uncommon.
F. striata (Thunb.) Kunth 82, fl. 7–9, P.p. fairly common, localised, northern aspect.
Scirpus setaceus L. 136, fl. 8, P.p. annual, uncommon.

RESTIONACEAE

- Restio gaudichaudianus* Kunth 12, fl. 4–8, P.p. on Rondekop and Meiringskop.

LILIACEAE

- Androcymbium capense* (L.) Druce 36, fl. 7–8, P.p. fairly common.
Wurmbea spicata (Burm.) Dur. & Schinz 197, fl. 10, P.p. southern aspect, uncommon.
Bulbinella setosa (Willd.) Dur. & Schinz 1, fl. 7, P.p. southern aspect, uncommon.
B. triquetra Kunth 269, fl. 8, P.p. southern aspect of Meiringskop, uncommon.
Bulbine alooides (L.) Willd. 97, fl. 8–9, P.p. & E.m. southern aspect, uncommon.
B. caespitosa Bak. 88, fl. 8, P.p. & E.m. southern aspect.
B. filifolia Bak. 203, fl. 11–2, P.p. & E.m. fairly common.
Trachyandra falcata (L.f.) Kunth 144, fl. 9, E.m. on Rondekop, rare.
T. jacquiniana (Roem. & Schult.) Oberm. 104, fl. 8–9, P.p. & E.m. fairly common.
Eriosperrum capense (L.) Thunb. 63, fl. 3, P.p. southern aspect, fairly common.
E. cordiforme Salter 69, fl. 3, P.p. fairly common.
E. lanceaefolium Jacq. 66, fl. 3, P.p. fairly common.
E. proliferum Bak. 96, fl. 3, P.p. southern aspect, rare.
Aloe microstigma Salm-Dyck 95, fl. 6–8, P.p. & E.m. especially abundant on northern aspect.
Haworthia margaritifera (L.) Haw. 124, fl. 12–1, P.p. & E.m. common.
H. setata Haw. 129, fl. 9–10, P.p. northern aspect on rocky outcrops, fairly common.
Tulbaghia alliacea L.f. 3, fl. 3–4, P.p. southern aspect of Meiringskop, uncommon.
Albuca altissima Dryand. 143, fl. 9, E.m. uncommon.
A. canadensis (L.) Leighton 30, fl. 8, P.p. fairly common.
A. spiralis L.f. 141, fl. 9, P.p. low lying areas, fairly common.
Urginea altissima (L.f.) Bak. 67, fl. 12, P.p. & E.m. fairly common.

- Drimys media* Jacq. ex Willd. 250, fl. 3, P.p. & E.m. southern aspect, uncommon.
Ornithogalum dubium Houtt. 186, fl. 10, P.p. southern aspect of Meiringskop, localised.
O. hispidum Hornem. 109, fl. 11–12, P.p. southern aspect, uncommon.
O. nanodes Leighton 251, fl. 3, P.p. southern aspect, rare.
O. pilosum L.f. 140, fl. 10, P.p. & E.m. southern aspect, uncommon.
O. salteri Leighton 60, fl. 9, P.p. & E.m. uncommon.
Lachenalia glaucina Jacq. 105, fl. 8, P.p. northern aspect, rare.
L. pustulata Jacq. 52, fl. 8–9, P.p. & E.m. uncommon.
L. unifolia Jacq. 59, fl. 8–9, P.p. & E.m. southern aspect, uncommon.
Massonia depressa Thunb. ex Houtt. 62, fl. 7, P.p. & E.m. southern aspect, uncommon.
Asparagus asparagoides (L.) Wight 171, fl. 8, E.m. fairly common.
A. capensis L. var. *capensis* 8, fl. 5–6, P.p. & E.m. fairly common.
A. crispus Lam. 4, fl. 6–7, P.p. & E.m. southern aspect, fairly common.
A. mucronatus Jessop 276 & 277, southern aspect of Meiringskop, rare.
A. retrofractus L. 9, fl. 6, E.m. southern aspect, rare.
A. suaveolens Burch. 10, fl. 3–4, E.m. common.

AMARYLLIDACEAE

- Amaranthus tigrinus* Jacq. 68, fl. 3–4, E.m. southern aspect, uncommon.
Nerine humilis (Jacq.) Herb. 11, fl. 4, E.m. southern aspect of Meiringskop, uncommon.

HYPOXIDACEAE

- Spiloxene serrata* (Thunb.) Garside 15, fl. 5–8, P.p. & E.m. fairly common.

TECOPHILAEACEAE

- Cyanella hyacinthoides* L. 64, fl. 9, P.p. uncommon.

IRIDACEAE

- Moraea algoensis* Goldbl. 138, fl. 8–9, P.p. southern aspect, fairly common.
M. gawleri Spreng. 106, fl. 8–9, P.p. southern aspect, fairly common.
M. unguiculata Ker-Gawl. 163, fl. 9–10, P.p. & E.m. fairly common.
M. viscaria (L.f.) Ker-Gawl. 162, fl. 9, P.p. southern aspect, uncommon.
Gynandris setifolia (L.f.) Fost. 290, fl. 9, E.m. southern aspect, rare.
G. simulans Bak. 117, fl. 9, P.p. southern aspect, rare.
Ferraria divaricata Sw. subsp. *australis* de Vos 187, fl. 9, P.p. & E.m. uncommon.
Hexaglottis lewisiae Goldbl. (= *H. flexuosa* (L.f.) Sweet) 204, fl. 11, P.p. southern aspect, rare.
Homeria collina (Thunb.) Vent. 135, fl. 9, P.p. southern aspect, uncommon.
Hesperantha bracteolata Fost. 283, fl. 8–9, P.p. southern aspect, fairly common.
H. falcata (L.f.) Ker-Gawl. 78, fl. 8–9, P.p. & E.m. southern aspect, fairly common.
H. radiata (Jacq.) Ker-Gawl. 122, fl. 8–9, P.p. southern aspect, fairly common.
Ixia latifolia Delaroche var. *angustifolia* Lewis 28, fl. 7–8, P.p. southern aspect, fairly common.
Babiana patula N.E. Br. 76, fl. 8, P.p. rare.
Gladiolus scullyi Bak. (= *Gladiolus venustus* Lewis) 107, fl. 9, P.p. rare.
Lapeirousia pyramidalis (Lam.) Goldbl. (= *L. fissifolia* (Jacq.) Ker-Gawl.) 102, fl. 9, P.p. low lying areas, uncommon.
Anomatheca fistulosa (Spreng. ex Klatt) Goldbl. (= *Lapeirousia fistulosa* (Spreng. ex Klatt) Bak.) 77, fl. 8, P.p. & E.m. uncommon.
Freesia refracta Klatt 51, fl. 8, P.p. fairly common.

ORCHIDACEAE

- Holothrix mundii* Sond. 79, fl. 7, P.p. southern aspect, rare.
H. secunda (Thunb.) Reichb.f. 295, fl. 9, P.p. southern aspect, rare.
H. villosa Lindl. 181, fl. 9, P.p. southern aspect, rare.

Satyrium erectum Schwartz 108, fl. 9, P.p. low lying areas, fairly common.

S. odorum Sond. 139, fl. 9, P.p. southern aspect, rare.

Disperis bolusiana Schltr. 266, fl. 8, P.p. southern aspect, rare.

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